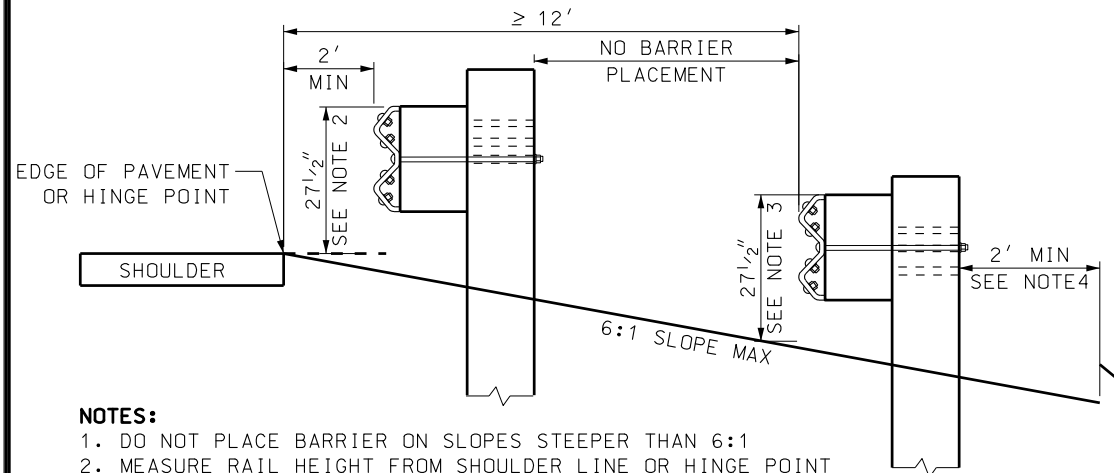


NOTES:

1. 2' MINIMUM OR PLACE AS FAR OFF PAVEMENT EDGE AS PRACTICAL.
2. USE TOP HOLE OF POST TO SET RAIL HEIGHT WHEN PAVEMENT SURFACE, TRAVEL LANES, ARE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE PAVEMENT. USE BOTTOM HOLE OF POST TO SET RAIL HEIGHT WHEN PAVEMENT SURFACE, TRAVEL LANES, ARE CONSTRUCTED WITH HOT MIX ASPHALT (HMA).

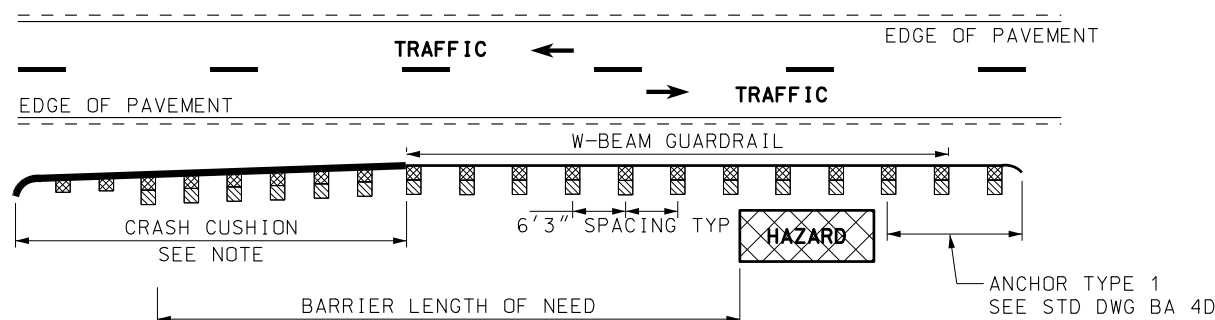
INITIAL INSTALLATION
USE 72" LONG POSTS



NOTES:

1. DO NOT PLACE BARRIER ON SLOPES STEEPER THAN 6:1
2. MEASURE RAIL HEIGHT FROM SHOULDER LINE OR HINGE POINT EXTENDED. USE TOP HOLE OF POST TO SET RAIL HEIGHT WHEN PAVEMENT SURFACE, TRAVEL LANES, ARE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE PAVEMENT. USE BOTTOM HOLE OF POST TO SET RAIL HEIGHT WHEN PAVEMENT SURFACE, TRAVEL LANES, ARE CONSTRUCTED WITH HOT MIX ASPHALT (HMA).
3. MEASURE RAIL HEIGHT FROM GROUND LINE WHEN BARRIER IS PLACED 12 FEET OR GREATER FROM EDGE OF SHOULDER. USE CENTER BOLT HOLE FOR BLOCK AND RAIL ATTACHMENT.
4. USE 84 INCH POST IF THE 6:1 SLOPE CANNOT BE MAINTAINED 2 FEET BEHIND THE LINE POSTS.

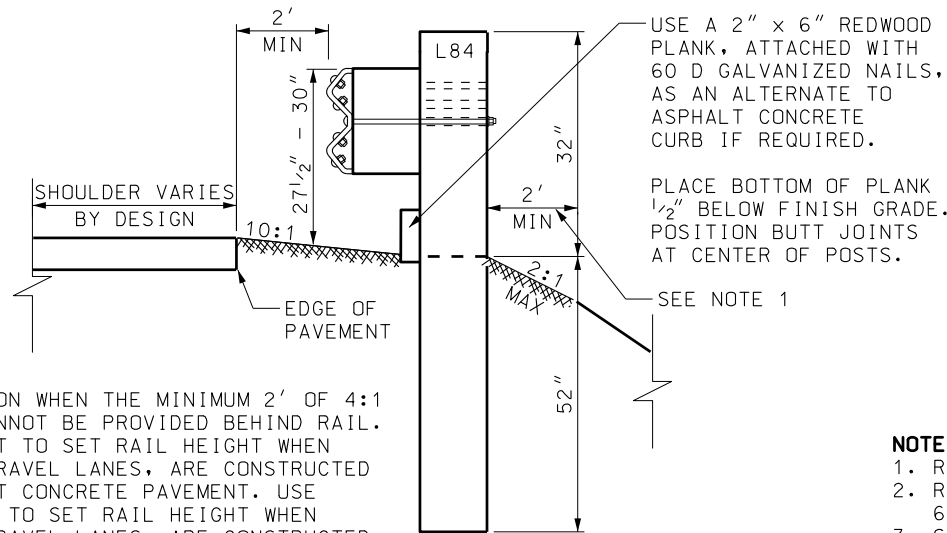
BARRIER INSTALLATION ON 6:1 SLOPE



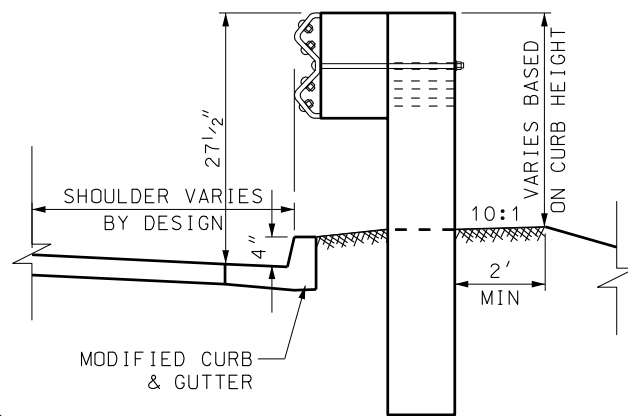
NOTE:

1. CRASH CUSHION REQUIRED WHEN BARRIER END IS WITHIN 1.2 TIMES AASHTO ROADSIDE DESIGN GUIDE CLEAR ZONE.

TYPICAL INSTALLATION



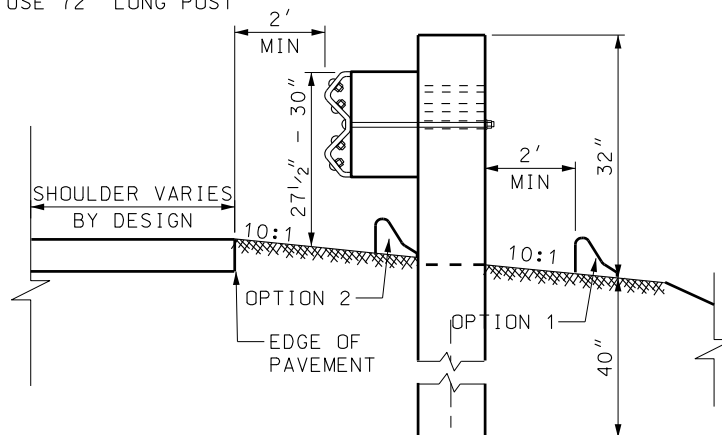
INITIAL LONG POST INSTALLATION
USE 84" LONG POSTS



SEE STD DWG BA 4S SERIES FOR SPECIFIC
INSTALLATION REQUIREMENTS

INSTALLATION W/MODIFIED
TYPE B1 CURB & GUTTER

USE 72" LONG POST



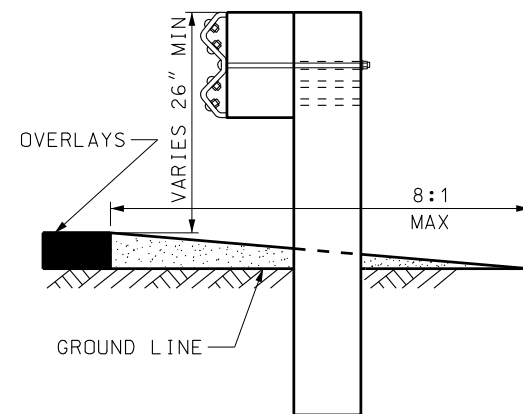
OPTION 1: PREFERRED INSTALLATION.

OPTION 2: PLACE FACE OF ASPHALT CONCRETE CURB BEHIND FACE OF RAIL. 2" MAXIMUM CURB HEIGHT WHEN USED IN FRONT OF POST.

NOTE:

1. USE TOP HOLE OF POST TO SET RAIL HEIGHT WHEN PAVEMENT SURFACE, TRAVEL LANES, ARE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE PAVEMENT. USE BOTTOM HOLE OF POST TO SET RAIL HEIGHT WHEN PAVEMENT SURFACE, TRAVEL LANES, ARE CONSTRUCTED WITH HOT MIX ASPHALT (HMA).

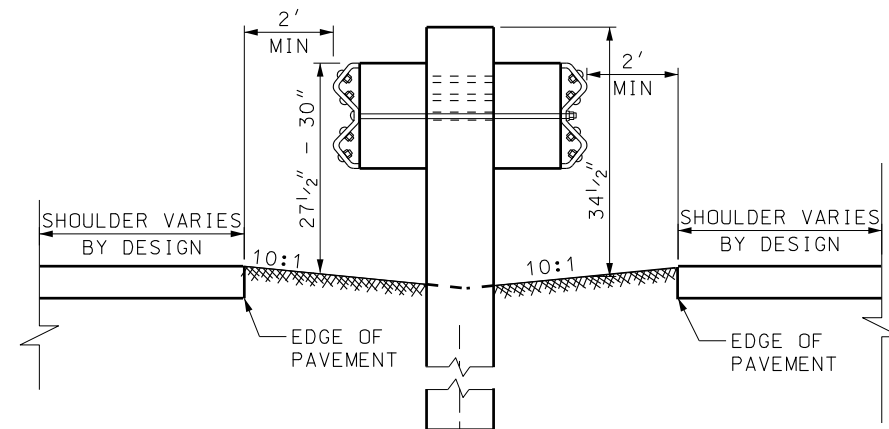
INSTALLATION W/ASPALT CONCRETE CURB



NOTES:

1. RAISE RAIL ELEMENT WHEN OVERLAY IS REQUIRED.
2. RAISED RAIL ELEMENT WILL ACCOMMODATE 6" TO 8" OF OVERLAY MATERIAL.
3. SLOPE OF SHOULDER INTO FACE OF RAIL NOT TO EXCEED 8:1.
4. RAISE REDWOOD PLANKING WHEN REQUIRED.
5. RAISING THE RAIL ELEMENT TO MAXIMUM HEIGHT REQUIRED BEFORE THE MINIMUM HEIGHT OF THE RAIL ELEMENT ABOVE GROUND LEVEL CAN BE REDUCED TO THE MINIMUM OF 26".

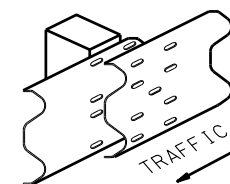
RAIL ELEMENT RAISED



NOTES:

1. IF MEDIAN BARRIER IS PLACED 10' OR GREATER FROM TRAVEL LANES USE TOP HOLE TO MOUNT BLOCK & RAIL.
2. RAISE BOTH RAIL ELEMENTS AS PER RAIL ELEMENT RAISED DETAIL, WHEN REQUIRED.
3. ATTACH REQUIRED DELINEATION ON THE POST.

MEDIAN BARRIER



SPLICE LAP DETAIL

REVISIONS

UTAH DEPARTMENT OF TRANSPORTATION
STANDARD DRAWINGS FOR ROAD AND BRIDGE CONSTRUCTION

RECOMMENDED FOR APPROVAL
CHAIRMAN STANDARDS COMMITTEE
APPROVED

DATE
JAN.01.2008

DEPUTY DIRECTOR
DATE
JAN.01.2008

W-BEAM GUARDRAIL
INSTALLATIONS

STD DWG
BA 4E

STANDARD DRAWING TITLE